Brenntag Canada Inc.

BRENNTAG Stinnes Logistics

MATERIAL SAFETY DATA SHEET

TRAVCHEM DEICER, LIQUID

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Brenntag Canada Inc.
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WHMIS Number: 00064165
Index: HCI3020/03C
Effective Date: 2002 February 04
Date of Revision: 2003 August 11
Website: http://www.brenntag.ca

EMERGENCY TELEPHONE NUMBERS

Toronto, ON (416) 226-6117	Montreal, QC (514) 861-1211	Winnipeg, MB (204) 943-8827
Edmonton, AB (780) 424-1754	Calgary, AB (403) 263-8660	Vancouver, BC (604) 685-5036

PRODUCT IDENTIFICATION

Product Name: Travchem Deicer, Liquid.
Chemical Name: Not available.
Synonyms: Not available.
Chemical Family: Mixture of aliphatic hydrocarbons.
Molecular Formula: Not available.
Product Use: Industrial solvent, cleaner, degreaser.
CAS #: See Section 3, "Composition, Information on Ingredients".
WHMIS Classification / Symbol: B-2: Flammable Liquid, D-1A: Very Toxic (acute effects) (Methanol), D-2A: Very Toxic (Teratogenic and Embryotoxic (Ethylene Glycol), D-2B: Toxic (Skin and Eye Irritant).

READ THE ENTIRE MSDS FOR THE COMPLETE HAZARD EVALUATION OF THIS PRODUCT.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Poison. May be fatal or cause blindness if swallowed. May be fatal if inhaled. Causes severe eye irritation. Causes skin irritation. Mists or sprays are irritating to eyes and respiratory tract. At elevated temperatures may cause irritation of the eyes and respiratory tract. High vapour concentrations may cause drowsiness. See "Other Health Effects" Section. Flammable liquid and vapour. May cause flash fire or explosion. Can decompose at high temperatures forming toxic gases. May form explosive peroxides. Contents may develop pressure on prolonged exposure to heat.

POTENTIAL HEALTH EFFECTS

. Inhalation: Product is irritating to the nose, throat and respiratory tract. See "Other Health Effects" Section.

. Skin Contact: Brief contact causes irritation (itching, local redness or possible swelling). Prolonged and repeated contact may lead to dermatitis. May cause defatting, drying and cracking of the skin. Skin contact can cause irritation, especially under the finger nails (and other confined spaces such as under rings or watch bands).

. Skin Absorption: May be absorbed through intact skin.

. Eye Contact: Vapours from this product are irritating to the eyes. Causes eye irritation.

. Ingestion: Ingestion is not a likely route of exposure. This product causes irritation, a burning sensation of the mouth and throat and abdominal pain.

Other Health Effects: Effects (irritancy) on the skin and eyes may be delayed, and damage may occur without the sensation or onset of pain. Strict adherence to first aid measures following any exposure is essential. Intentional misuse of organic solvents (eg. "glue sniffing") over prolonged periods of time may be habit forming and lead to behavioural changes.

May cause central nervous system (CNS) depression, liver damage, kidney damage, systemic poisoning and death. CNS depression is characterized by headache, dizziness, drowsiness, nausea, vomiting and incoordination. Severe overexposures may lead to coma and possible death due to respiratory failure. Liver damage is characterized by the loss of appetite, jaundice (yellowish skin colour), and occasional pain in the upper left-hand side of the abdomen. Signs and symptoms of kidney damage generally progress from oliguria, to blood in the urine, to total renal failure.

Methanol may cause visual disturbances, blindness, photophobia, metabolic acidosis and endocrine effects. Mild blurring of vision to complete blindness may occur, including changes in colour perception and photophobia. Symptoms usually develop 12-18 hours after exposure. Abnormal sensitivity to light is termed photophobia. Metabolic acidosis is a condition that describes a decreased pH and bicarbonate concentration in the body fluids.

Ethylene Glycol poisoning occurs in three stages: central nervous system (CNS) depression, cardiopulmonary failure and kidney failure. The severity of those stages, and advancement from one stage to another depends upon the dose ingested. CNS depression is characterized by headache, dizziness, drowsiness, nausea, vomiting and incoordination. Severe overexposures may lead to coma and possible death due to respiratory failure. Survival of CNS depression may be followed by cardiopulmonary failure, which is initiated by the onset of coma and is characterized by quick, shallow breathing, excessively fast heart beat, mild hypertension and cyanosis. Survival of cardiopulmonary failure may be followed by kidney damage, which may range from a mild increase in blood urea nitrogen to complete kidney failure and possible death. In severe cases of overexposure, pulmonary oedema, bronchopneumonia, cardiac enlargement and possible death may occur. Pulmonary oedema is the exposure to high concentrations of a substance causing the build-up of fluid in the lungs that might be fatal. Symptoms of pulmonary oedema, such as shortness of breath, may not appear until several hours after exposure and are aggravated by physical exertion. There may be cranial nerve involvement in the late stages of toxicity from swallowed Ethylene Glycol. In particular, effects have been reported from the seventh, eighth and ninth cranial nerves, presenting with bilateral facial paralysis, diminished hearing and difficulty in swallowing (dysphagia). (3)

Diethyl Ether may cause weakness, fatigue, anorexia, dyspnea and blood changes.

3. COMPOSITION, INFORMATION ON INGREDIENTS (Not Intended As Specifications)

Hazardous Ingredients	CAS No.	ACGIH TLV	%
Methanol	000067-56-1	200 ppm (Skin)	30 - 60
Isopropanol	000067-63-0	200 ppm *A4	30 - 60
Ethylene Glycol	000107-21-1	100 mg/M3 *A4 (Ceiling, Aerosol)	10 - 30
Diethyl Ether	000060-29-7	400 ppm	1 - 5

A4 = Not classifiable as a human carcinogen. (ACGIH-A4)
Skin Notation: Contact with skin, eyes and mucous membranes can contribute to the overall exposure and may invalidate the TLV. Consider measures to prevent absorption by these routes.

4. FIRST AID MEASURES

FIRST AID PROCEDURES

. Inhalation: Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Obtain medical attention IMMEDIATELY.

. Skin Contact: Start flushing while removing contaminated clothing. Wash affected areas thoroughly with soap and water. If irritation, redness, or a burning sensation develops and persists and obtain medical advice.

. Eye Contact: Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY.

. Ingestion: Do not attempt to give anything by mouth to an unconscious person. If victim is alert and not convulsing, rinse mouth out and give 1/2 to 1 glass of water to dilute material. IMMEDIATELY contact local Poison Control Centre. Vomiting should only be induced under the direction of a physician or a poison control centre. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. IMMEDIATELY transport victim to an emergency facility.

Note to Physicians: This product contains materials that may cause severe pneumonitis if aspirated. If ingestion has occurred less than 2 hours earlier, carry out careful gastric lavage; use endotracheal cuff if available, to prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy if respiration is depressed.

Methanol: When plasma Methanol concentrations are higher than 20 mg/dL, when ingested doses are greater than 30 mL, and when there is evidence of acidosis or visual abnormalities, a 10% solution of ethanol in 5% aqueous dextrose, administered intravenously, is a safe, effective antidote. (3)

Isopropanol: Metabolism of isopropanol forms acetone, which may be detected in the urine and expired air. In contrast to diabetic acidosis, acidosis will occur in the absence of hyperglycemia. Haemodialysis should be considered in severe, acute intoxications. (3)

Ethylene Glycol is metabolized by alcohol dehydrogenase to various metabolites including glycoaldehyde, glycolic acid, and oxalic acid which cause an elevated anion-gap metabolic acidosis and renal tubular injury. Urinalysis may show albuminuria, hematuria and oxaluria. Clinical chemistry may reveal anion-gap metabolic acidosis and uremia. (3)

The currently recommended medical management of Ethylene Glycol poisoning includes elimination of Ethylene Glycol and metabolites, correction of metabolic acidosis and prevention of kidney injury. It is essential to have immediate and follow-up urinalysis and clinical chemistry. There should be particular emphasis on acid-base balance and renal function tests. A continuous infusion of 5% Sodium Bicarbonate with frequent monitoring of electrolytes and fluid balance is used to achieve correction of metabolic acidosis and forced diuresis. (3)

Pulmonary oedmea with low arterial oxygen levels (hypoxemia) has been described in a number of patients following poisoning with Ethylene Glycol. The mechanism of production has not been elucidated, but it appears to be not carcinogenic in origin in several cases. Respiratory support with mechanical ventilation and positive end-expiratory pressure may be required. (3)

As a competitive substrate for alcohol dehydrogenase, Ethyl Alcohol is antidotal. Given in the early stages of intoxication, it blocks the formation of nephrotoxic metabolites. A therapeutically effective blood concentration of ethanol is in the range of 100-150 mg/dL, and should be achieved by a rapid loading dose and maintained by intravenous infusion. (3)

For severe and/or deteriorating cases, hemodialysis may be required. Dialysis should be considered for patients who are symptomatic, have severe metabolic acidosis, a blood Ethylene Glycol concentration greater than 25 mg/dL, or compromise of renal function. (3)

4-Methylpyrazole, a potent inhibitor of alcohol dehydrogenase, has been effectively used to decrease the metabolic consequences of Ethylene Glycol poisoning before metabolic acidosis, coma, seizures and renal failure have occurred. (3)

Additional therapeutic measures may include the administration of cofactors involved in the metabolism of Ethylene Glycol. Thiamine (100 mg) and pyridoxine (50 mg) should be given

every six hours. (3)

Medical conditions that may be aggravated by exposure to this product include neurological and cardiovascular disorders, diseases of the skin, eyes or respiratory tract, preexisting liver and kidney disorders.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flammability Class (WHMIS): B-2: Flammable Liquid. Enforce NO SMOKING rules.
Flash Point (TCC, Deg. Celsius): -5 (Estimated).
Autoignition Temperature (Deg. Celsius): 160 (Estimated).
Flammability Limits in Air (%): LEL: 1.7 (Estimated). UEL: 36.5 (Estimated).

Hazardous Combustion Products: Thermal decomposition products are toxic and may include formaldehyde and oxides of carbon and irritating gases.

Unusual Fire or Explosion Hazards: Vapours from this product are heavier than air, and may "travel" to a source of ignition (eg. pilot lights, heaters, electric motors) some distance away, and then "flash back" to the point of product discharge causing an explosion and fire. Closed containers exposed to heat may explode. Spilled material may cause floors and contact surfaces to become slippery.

Sensitivity to Mechanical Impact: Not expected to be sensitive to mechanical impact.
Rate of Burning: Not available.
Explosive Power: Not available.
Sensitivity to Static Discharge: Expected to be sensitive to static discharge when vapours are present between the lower and upper explosive limits.

EXTINGUISHING MEDIA

Fire Extinguishing Media: Use carbon dioxide or dry chemical media for small fires. If only water is available, use it in the form of a fog. This material may produce a floating fire hazard in extreme fire conditions.

FIRE FIGHTING INSTRUCTIONS

Instructions to the Fire Fighters: Use water spray to cool fire-exposed containers or structures. Use water spray to disperse vapours; re-ignition is possible. Isolate materials that are not involved in the fire and protect personnel. Cool containers with flooding quantities of water until well after the fire is out.

Fire Fighting Protective Equipment: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Information in this section is for responding to spills, leaks or releases in order to prevent or minimize the adverse effects on persons, property and the environment. There may be specific reporting requirements associated with spills, leaks or releases, which change from region to region.

Containment and Clean-Up Procedures: In all cases of leak or spill contact vendor at Emergency Number shown on the front page of this MSDS. Wear protective clothing. Recover spilled material on non-combustible absorbents, such as sand or vermiculite, and place in covered containers for disposal. Use spark-resistant tools. Eliminate all sources of ignition. Collect product for recovery or disposal. For release to land, or storm water runoff, contain discharge by constructing dykes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Ventilate enclosed spaces. Notify applicable government authority if release is reportable or could adversely affect the environment.

7. HANDLING AND STORAGE

HANDLING

Handling Practices: Ground and bond equipment and containers to prevent a static charge buildup. Use spark-resistant tools and avoid "splash-filling" of containers. Use normal "good" industrial hygiene and housekeeping practices. Containers exposed to heat may be under internal pressure. These should be cooled and carefully vented before opening. A face shield and apron should be worn. Vent container frequently, and more often in warm weather, to relieve pressure. Enforce NO SMOKING rules in area of use.

Ventilation Requirements: See Section 8, "Engineering Controls".

Other Precautions: Use only with adequate ventilation and avoid breathing vapours and aerosols. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use. Do not use cutting or welding torches on empty drums that contained this material/product. Store wiping rags and similar material in metal cans with tight fitting lids.

STORAGE

Storage Temperature (Deg Celsius): See below.
Ventilation Requirements: Ventilation should be explosion proof.

Storage Requirements: Store in a cool, well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed. Do not expose sealed containers to temperatures above 40 Deg. Celsius. Avoid moisture contamination. Protect from direct sunlight. Protect against physical damage.

Special Materials to be Used for Packaging or Containers: Materials of construction for storing the product include: steel. Equipment for storage, handling or transport should NOT be made from the following material, or, where applicable, its alloys: Epoxy or aluminum. Attacks some types of rubber, plastics and coatings. Confirm suitability of any material before using.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Recommendations listed in this section indicate the type of equipment, which will provide protection against overexposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

ENGINEERING CONTROLS

Engineering Controls: Local exhaust ventilation required. Ventilation should be explosion proof. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense vapours may collect.

For personnel entry into confined spaces (i.e. bulk storage tanks) a proper procedure must be followed. It must include consideration of, among other things, ventilation, testing of tank atmosphere, provision and maintenance of SCBA, and emergency rescue. Use the "buddy" system. The second person should be in view and trained and equipped to execute a rescue. (4)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Contact with skin, eyes and mucous membranes can contribute to the overall exposure and may invalidate the TLV. Consider measures to prevent absorption by these routes.

Eye Protection: Safety glasses with side shields are recommended as minimal eye protection. Use full face-shield or chemical safety goggles when there is potential for contact. Contact lenses should not be worn when working with this material.

Skin Protection: Gloves and protective clothing made from polyethylene vinyl alcohol, polyvinyl alcohol (PVA), teflon, rubber or plastic should be impervious under conditions of use. Prior to use, user should confirm impermeability. Do not use gloves or protective clothing made from natural rubber, butyl rubber, polyethylene, PVC, neoprene, viton, nitrile rubber and polyvinyl alcohol (PVA). Prior to use, user should confirm

impermeability. Discard contaminated gloves.

Respiratory Protection: No specific guidelines available. A NIOSH/MSHA-approved air-purifying respirator equipped with organic vapour cartridges for concentrations up to 200 ppm. A NIOSH/MSHA-approved full facepiece air-supplied respirator if concentrations are higher or unknown.

If while wearing a respiratory protection, you can smell, taste or otherwise detect anything unusual, or in the case of a full facepiece respirator you experience eye irritation, leave the area immediately. Check to make sure the respirator to face seal is still good. If it is, replace the filter, cartridge or canister. If the seal is no longer good, you may need a new respirator. (4)

Other Personal Protective Equipment: Wear an impermeable apron and boots. Locate safety shower and eyewash station close to chemical handling area. Take all precautions to avoid personal contact. Clothing and footwear that is fire retardant and dissipates static electrical charges should be worn when handling flammable materials. Natural fibers (cotton, wool, leather and linen) should be selected in favour of synthetic materials (rayon, nylon and polyester).

EXPOSURE GUIDELINES

	ACGIH TLV	OSHA PEL		NIOSH REL	
	(STEL)	(TWA)	(STEL)	(TWA)	(STEL)
Methanol	250 ppm (Skin)	200 ppm (Skin)	----	200 ppm (Skin)	250 ppm (Skin)
Isopropanol	500 ppm	400 ppm	----	400 ppm	500 ppm
Ethylene Glycol	100 mg/M3 (Ceiling)	----	----	----	----
Diethyl Ether	500 ppm	400 ppm	----	----	----

9. PHYSICAL AND CHEMICAL PROPERTIES (Not intended as Specifications)

Physical State: Liquid.
Appearance and Odour: Clear, colourless liquid. Mild alcohol odour.
Odour Threshold (ppm): Not available.
Boiling Range (Deg Celsius): Not available.
Melting/Freezing Point (Deg Celsius): Not available.
Vapour Pressure (mm Hg at 20 Deg. Celsius): Not available.
Vapour Density (Air = 1.0): Not available.
Relative Density (g/cc): 0.82 to 0.83.
Bulk Density: 820 to 830 Kg/M3.
Viscosity: Not applicable.
Evaporation Rate (Butyl Acetate = 1.0): Not available.
Solubility: Soluble in water.
% Volatile by Volume: 100 %.
pH: Not available.
Coefficient of Water/Oil Distribution: Not available.
Volatile Organic Compounds (VOC): 100 %.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY

Under Normal Conditions: Stable.
Under Fire Conditions: Flammable.
Hazardous Polymerization: Will not occur.

Conditions to Avoid: High temperatures, sparks, open flames and all other sources of ignition. Keep tightly closed to protect quality. Avoid direct sunlight. Air sensitive. Avoid extended contact with air or oxygen. Oxygen exposure may lead to the formation of explosive peroxides. Do not distill to dryness. Avoid excessive temperature or prolonged reflux, such as in batch distillation.

Materials to Avoid: Strong oxidizers. Strong Acids. Lewis or mineral acids. Sulphuric Acid. Alkali metals and their hydroxides. Halogens. Interhalogens. Bromine trifluoride. sulphur containing materials and Sulphur. Permanganates. Chromic Anhydride. Nitrosyl Perchlorate. Liquid Oxygen. Epoxy. Materials reactive with hydroxyl bearing compounds. Aluminum and its alloys. Isocyanates. Mixtures or reactions of alcohols with the following materials may cause explosions: barium perchlorate, chlorine, hypochlorous acid, ethylene oxide, hexamethylene diisocyanate and other isocyanates, nitrogen tetroxide, permonosulfuric acid and tri-isobutyl aluminum. (4) Attacks some types of rubber, plastics and coatings.

Decomposition or Combustion Products: Thermal decomposition products are toxic and may include formaldehyde and oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Toxicological Data: None established for this product.

Methyl Alcohol	LD50 (Oral, Rat)	= 5,628 mg/Kg (1)
	LD50 (Dermal, Rabbit)	= 15,800 mg/Kg (1)
	LC50 (Inhal'n, Rat, 4h)	= 64,000 ppm (1)
Isopropanol	LD50 (Oral, Rat)	= 4,420 - 5,840 mg/Kg (1,3)
	LD50 (Dermal, Rabbit)	= 6,291 - 12,900 mg/Kg (1,3)
	LC50 (Inhal'n, Rat, 4h)	= 12,000 ppm (3)
Ethylene Glycol	LD50 (Oral, Rat)	= 4,700 mg/Kg (1)
	LD50 (Dermal, Rabbit)	= 9,530 mg/Kg (1)
	LC50 (Inhal'n, Rat, 4h)	= 10,876 mg/M3 (1)
Diethylene Glycol	LD50 (Oral, Rat)	= 12,565 mg/Kg (1)
	LD50 (Dermal, Rabbit)	= 11,890 mg/Kg (1)
Diethyl Ether	LD50 (Oral, Rat)	= 1,215 mg/Kg (1)
	LC50 (Inhal'n, Rat, 4h)	= 51,618 ppm (1)
	LC50 (Inhal'n, Mouse, 4h)	= 4,174 ppm (1)

Carcinogenicity Data: The ingredient(s) of this product is (are) not classed as carcinogenic by ACGIH, IARC, OSHA or NTP. See "Other Studies Relevant to Material".
Reproductive Data: Not available. No adverse reproductive effects are anticipated.
Mutagenicity Data: Not available. No adverse mutagenic effects are anticipated.

Teratogenicity Data: Based on animal studies, ingestion of very large amounts of Ethylene Glycol appears to be the major and possibly the only route of exposure to produce birth defects. (3) See "Other Studies Relevant to Material".

Respiratory / Skin Sensitization Data: None known.

Synergistic Materials: Alcohols may interact synergistically with chlorinated solvents (example - carbon tetrachloride, chloroform, bromotrichloromethane), dithiocarbamates (example - disulfiram), dimethylnitrosamine and thioacetamide. (4)

Other Studies Relevant to Material: Ethylene Glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses. The absence of a carcinogenic potential for Ethylene Glycol has been supported by numerous in vitro genotoxicity studies showing that it does not produce mutagenic or clastogenic effects. (3)

Ethylene Glycol caused mild skin and eye irritation when tested in rabbits. (3)

Methanol caused moderate skin and eye irritation when tested on rabbits using the Standard Draize Test. Methanol showed no evidence of carcinogenic potential in limited animal studies in which methanol was given orally or applied to the skin. Limited evidence of mutagenicity and teratogenicity exists. (3)

Methanol was tested for alterations in circulating free testosterone and leuteinizing hormone. The most extensive effects were noticed after exposure to 200 ppm Methanol for six weeks, with serum levels of testosterone being 32 % that of the controls. A significant change in leuteinizing hormone concentration after exposure to 10,000 ppm of

Methanol. The results of skin absorption experiments led to the deaths of all animals when exposed to any concentration of Methanol. (4)

Isopropanol: An indication of reduced mating performance in second generation male rats was noted at oral doses of 1,000 mg/Kg/day in a two-generation reproductive study. Increased neonatal mortality was also seen at doses of 500 mg/Kg/day and greater in this study. (3)

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available. May be harmful to aquatic life.

Environmental Fate: Not available. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

13. DISPOSAL CONSIDERATIONS

Deactivating Chemicals: None required.

Waste Disposal Methods: This information applies to the material as manufactured. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems. Reevaluation of the product may be required by the user at the time of disposal since the product uses, transformations, mixtures and processes may influence waste classification.

Safe Handling of Residues: See "Waste Disposal Methods".

Disposal of Packaging: Empty containers retain product residue and can be dangerous. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. Do not expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Do not dispose of package until thoroughly washed out. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations.

14. TRANSPORTATION INFORMATION

CANADIAN TDG ACT SHIPPING DESCRIPTION:
Flammable Liquid, NOS (Diethyl Ether), Class 3, UN1993, Pk Gp II.
Label(s)/Placard(s): Flammable Liquid. Exemptions: None known.

US DOT CLASSIFICATION (49CFR 172.101, 172.102):
Flammable Liquid, NOS (Diethyl Ether), Class 3, UN1993, Pk Gp II.
Label(s)/Placard(s): Flammable Liquid.
Reportable Quantity (CERCLA-RQ): Not available. Exemptions: None known.

15. REGULATORY INFORMATION

CANADA
CEPA - NSNR: All constituents of this product are included on the DSL.
CEPA - NPRI: Methanol, Isopropanol, Ethylene Glycol.
Controlled Products Regulations Classification (WHMIS): B-2: Flammable Liquid, D-1A: Very Toxic (acute effects), D-2A: Very Toxic (Teratogenic and Embryotoxic), D-2B: Toxic (Skin and Eye Irritant).

USA
Environmental Protection Act: All constituents of this product are included on the TSCA inventory.
OSHA Hazard Communication (29CFR 1910.1200) Classification: Flammable Liquid, Highly Toxic, Teratogenic and Embryotoxic, Skin and Eye Irritant.

HMIS: 2 Health, 3 Fire, 0 Reactivity. (8)

INTERNATIONAL: Not available.

16. OTHER INFORMATION

ADDITIONAL INFORMATION AND SOURCES USED

1. RTECS-Registry of Toxic Effects of Chemical Substances, Canadian Centre for Occupational Health and Safety RTECS database.
2. Clayton, G.D. and Clayton, F.E., Eds., Patty's Industrial Hygiene and Toxicology, 3rd ed., Vol. IIA,B,C, John Wiley and Sons, New York, 1981.
3. Supplier's Material Safety Data Sheet(s).
4. "CHEMINFO", through "CCINFOdisc", Canadian Centre for Occupational Health and Safety, Hamilton, Ontario, Canada.
5. Guide to Occupational Exposure Values, 2002, American Conference of Governmental Industrial Hygienists, Cincinnati, 2002.
6. NFPA 325M Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids, 1994 Edition, Quincy, MA, 1994.
7. The British Columbia Drug and Poison Information Centre, Poison Managements Manual, Canadian Pharmaceutical Association, Ottawa, 1981.
8. Regulatory Affairs Group, Brenntag Canada Inc.

To obtain revised copies of this or other Material Safety Data Sheets, contact your nearest Brenntag Canada Regional office.

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